U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

SEP 25 2001

DOT-E 6016
(TENTH REVISION)

EXPIRATION DATE: August 31, 2003

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Huber Supply Company, Inc.
Mason City, IA

(See Appendix A to this document for a list of additional grantees)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce of certain Division 2.2 materials in non-DOT specification portable tanks. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.318 in that non-DOT specification packaging is authorized.

5. BASIS: This exemption is based on the application of Huber Supply Company dated June 28, 2001, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identification Number	Packing Group
Argon, refrigerated liquid (*cryogenic liquid*)	2.2	UN1951	N/A
Nitrogen, refrigerated liquid (*cryogenic liquid*)	2.2	UN1977	N/A
Oxygen, refrigerated liquid (*cryogenic liquid*)	2.2	UN1073	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification portable tank designed and constructed in accordance with Section VIII of ASME Code, having a maximum allowable working pressure of 250 psig, a design temperature of minus 320°F, a stainless steel inner tank, the insulation space filled with perlite and evacuated, and a steel outer jacket. In addition, each tank must comply with all of the following:

(1) Except as specified otherwise, the tanks must comply with Cosmodyne drawings specified below on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). Authorized designs are as follows:

Model Number	Water Capacity (Gallons)	Cosmodyne Corporation's or Ryan Industries' Drawing Numbers
VE 550	550	4027202-Rev. G, 427205-Rev. 1, 421750-Rev. 0, 402715-Rev. N, SK-B-985 or SK-B-987-Rev. 0.
VE 800	800	4032502-Rev.I, 4032505-Rev. G, 421750-Rev. 0, 4027215-Rev. N, SK-B-986-Rev. 0.

(2) The tank must be equipped with one 3/4-inch Kunkle type spring loaded safety relief valve rated at 546 CFM air at 250 psi arranged to discharge upward and unobstructed to the outside of the protective housing.

(3) All valves, fittings, safety relief devices, other accessories and piping must be adequately protected from collision damage in accordance with § 178.337-10.

(4) No new construction is authorized.

b. TESTING -

(1) Each portable tank must be reinspected and retested once every 5 years in accordance with § 173.32(e) as prescribed for DOT Specification 51 portable tanks. Pneumatic retesting at one and one-half times the design pressure is authorized in place of the required hydrostatic test.

(2) Tank must be tested to 1-1/2 times the design pressure before being placed in service.

c. OPERATIONAL CONTROLS -

(1) Tank must be filled by weight or it must be equipped with one or more gauging devices which must indicate accurately the maximum permitted liquid level to allow at least two percent outage below the inlet of the controlling relief valve under conditions of incipient opening of this valve with the tank in a level attitude. A fixed length dip tube, a fixed trycock line or a differential pressure liquid level gauge is authorized as primary control for filling; other gauging devices, except gauge glasses, are permitted but may not be used as the primary control for filling. In addition, nitrogen, oxygen, and argon must be loaded and shipped as follows:

Maximum Start-to-Discharge Pressure of Controlling Pressure Relief Valve	Maximum Permitted Filling Density (Percent by Weight)		
	Nitrogen	Oxygen	Argon
55 Psig	71	102	125
250 Psig	57	87	106

(2) The time required between the loading of the portable tank and the subsequent unloading of the same tank at its final destination must not exceed the OWTT as determined below:

To determine the "one-way travel time" (OWTT), a measured holding time test must be performed with the tank charged with the intended commodity at the maximum loading temperature to be used in service and to the filling density prescribed in paragraph 7c above. The equilibrium pressures and ambient temperatures must be recorded at 3-hour intervals until the desired holding time period is reached or until the pressure level of the contents reaches a pressure not to exceed that at which the lowest pressure relieving device is set to open. This total time lapse in hours shall be noted "measured holding time at ...°F. average temperature." The measured holding time must be adjusted to the equivalent holding time for the commodity at 85°F to establish the rated holding time (RHT). The holding time stamped on the jacket nameplate (marked rated holding time---MRHT) may be equal to or less than the established RHT. The "one-way travel time" is determined by the formula:

(i) When unloading is completed at one location,

$$\text{The OWTT} = \frac{\text{MRHT} - 24}{2}$$

(ii) When unloading takes place at two or more locations

$$\text{The OWTT} = \frac{\text{MRHT} - 24 \text{ hours}}{4}$$

Test data obtained from one of the above commodities may be used to establish the OWTT for any of the other authorized commodities.

(3) Before transportation in any empty condition, each tank must be emptied of liquid contents. In addition, the vapor pressure must be so reduced as to avoid the possibility of venting en route.

(4) For each shipment, the driver must record the portable tank pressure at the start of the trip, immediately before and after any venting.

(i) When unloading is completed at one location, the driver must record the pressure, at least once every 5 hours, and at destination.

(ii) When unloading takes place at two or more locations, the driver must record the total time lapse from loading to complete unloading.

(5) Existing tanks operating under this exemption that are not equipped with 55 PSIG road relief valve must have such a valve installed at the time the next reinspection and retest becomes due.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. MARKING - Each portable tank must be plainly marked on both sides near the middle, in letters at least two inches high on a contrasting background, "DOT-E 6016," and the legend "One-Way Travel Time _____ Hours." (Note: This blank must be filled in, according to the results obtained from an actual test as described in paragraph 7.c.(2). For existing tanks, holding time test must be performed on each tank no later than the next scheduled retest of the tank.)

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS:

a. A copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption.

b. Drivers must have been instructed as to necessary safeguards and proper procedure in the event of unusual delay, fire or accident.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:

SEP 25 2001
(DATE)

For Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: KFW

SEP 25 2001

The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
S.J. Smith Welding Supply Davenport, IA	Jun 28, 2001	SEP 25 2001	Aug 31, 2003
Acety Arc, Inc. Paducah, KY	Jul 2, 2001	SEP 25 2001	Aug 31, 2003
Airgas Management, Inc. Cheyenne, WY	May 31, 2001	SEP 25 2001	Aug 31, 2003

For Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety